Watershed Approach for Linking Compensatory Mitigation and Tampa Bay Habitat Restoration Goals

BASIS 5 Conference
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Tampa Bay Estuary Program
1996 Tampa Bay Habitat Master Plan

- Estimated habitat acreages for 1950 and 1990
- Focus on estuarine habitat
  - Mangrove, Tidal Marsh, Salt barren
- Set targets for restoration and protection
  - Identified specific sites for acquisition and restoration
- Guiding paradigms
  - Restore the balance
  - Habitat mosaic approach
Habitat Master Plan Update

- Estimates of acreage through 2007
- Inclusion of other habitats
  - Oyster bars, hard bottom, tidal tributaries, artificial habitats
- Identifies new priority sites for acquisition and restoration
- New concepts presented:
  - Habitat monitoring program
  - Larger restoration sites with hydrologic alterations
  - Explore using compensatory mitigation for meeting habitat restoration goals
EPA Region 4 Wetlands Development Grant

- Goals: Increasing quantity and quality of wetlands
  - Conserving and restoring wetland acreage
  - Improving wetland condition
- National Priority Areas
  - Improving the Effectiveness of Compensatory Mitigation
- Revisions to Wetland Regulations
  - EPA and US Army Corps Federal 404 program: revisions for governing compensatory mitigation
  - Incorporate wetland issues into broader watershed planning and management
  - Recognize adopted watershed management plans (e.g., TBEP’s CCMP)
Tampa Bay Proposal: Rationale

- Currently no link between TBEP’s CCMP and freshwater wetland regulatory requirements
- Mitigation has occurred independent of watershed planning and monitoring
- Poor documentation of freshwater wetland losses and gains
Project Goals

- Coordinate mitigation projects with Tampa Bay watershed plans and goals
- Develop watershed and basin-specific goals (restoration, enhancement, protection)
- Identify appropriate locations for mitigation
- Develop performance standards
- Implement watershed-wide reporting and monitoring
- Improve federal-state-local regulatory coordination
Specific Project Tasks

- Freshwater wetland change analysis
  - 1950 to current by wetland type and major sub-basins
- Goals and targets for freshwater wetlands
  - Include watershed-specific performance standards
- Agency Coordination Workshops
  - Watershed-wide reporting
  - Monitoring and assessment program
  - Financial mechanisms
  - Incentives for private mitigation banks
  - Memorandum of Understanding/Agreement among partners
Project Partners and Advisors

• Federal
  • EPA
  • US Army Corps of Engineers

• State
  • FL Dept. of Environmental Protection
  • Southwest FL Water Management District

• Local
  • Pinellas County
  • Hillsborough County
  • Manatee County
  • Environmental Protection Commission of Hillsborough County

• USF/Balmoral
Draft Project Timeline

- Approximately 2 years
- Project Initiation: Month 1
- Freshwater Wetland Change Analysis: Months 1 – 7
- Goal and Target Setting: Months 6 – 16
- Agency Coordination Workshops: Months 13 – 20
- Final Report: Months 21 – 24
Partnerships Invaluable

- Input needed by partners and stakeholders
  - Technical tasks
  - Regulatory/policy aspects
- Memorandum of Understanding/Agreement
- Contact Lindsay Cross for additional info:
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PROJECT TEAM

- SUSAN BELL (USF)
- TOM CRISMAN (USF)
- SHAWN LANDRY (USF)
- MARK RAINS (USF)
- VALERIE SEIDEL (BALMORAL GROUP)
- MARK STEWART (USF)
Understanding of the Context

- How can compensatory mitigation be linked to broader public and private watershed-scale restoration efforts?
- Four compensatory mitigation options:
  - permittee-responsible mitigation,
  - in-lieu fee mitigation funds,
  - mitigation banks, and
  - regional off-site mitigation areas.
- All have strengths and weaknesses, even permittee-responsible mitigation.
- Is there another option? YES!
1950 – 2007 Wetland Change

- Historic wetlands digitized from 1950s aerial images
- Current (2007) wetlands extracted from SWFWMD land use / land cover
- Change analysis:
  - Wetlands lost
  - Wetland structural changes
  - Changes by sub-basin and individual wetland polygons
- Conditional assessment of functional characteristics and restoration potential for remaining wetlands
Conditional Assessment

- When you have a hammer, every problem looks like a nail.
- Florida’s functional assessment hammers, in succession: HGM, WRAP, UMAM.
- None, however, are appropriate for the task at hand!
  - All are too complex to be applied at this scale.
  - UMAM, in particular, relies too heavily on qualitative information.
- We propose a simplified conditional assessment tool, which uses readily-available GIS data to quantitatively score variables which are aggregated into total conditional assessment scores.
VALIDATION PROCESS

- USF/BALMORAL TEAM WILL DEVELOP GOALS FOR WETLANDS AND A FIELD PROCEDURE (DRAFT MANUAL) FOR TESTING VALIDITY
- AGENCY PARTNERS (HCEPC) WILL USE MANUAL TO SPOT CHECK TEAM ASSESSMENTS AND CALCULATE AGREEMENT BETWEEN LAB AND FIELD METHODS
- DRAFT MANUAL WILL BE ADJUSTED AND PRESENTED TO BROADER AGENCY GROUP
- FINAL MANUAL WILL BE DEVELOPED AND TESTED.
Consensus Building Techniques

- We are familiar with numerous methods and successful examples of consensus building.

- Delphi Method
  - Used to formulate a group judgment about the effectiveness of different approaches and expected impacts of these approaches on important performance indicators.
  - Basic approach is to elicit information and judgments from a panel of independent experts over two or more rounds.
  - Anonymous summaries of responses and rationales encourages participants to revise their responses.
  - Revisions and iterations tend to converge toward a consensus group judgment.
  - Collective wisdom helps guide actions.
PROJECT OVERVIEW

• We will integrate economic and environmental information to help develop an effective and feasible plan for restoration in the Tampa Bay Basin.
  • We will consider land-use plans and land values in identifying potential restoration and mitigation bank locations.
  • We will develop and use a conditional assessment tool to account for the loss of functions due to the degradation of existing wetlands.
COOPERATIVE EFFORT

- WE SEEK BROAD COOPERATION WITH OUR PARTNERS
- IT IS CRITICAL THAT A PRODUCT BE DEVELOPED THAT CAN BE USED TO ASSESS WETLANDS OF TAMPA BAY AND IS USER FRIENDLY
- IF INTERESTED IN JOINING OUR EFFORT, PLEASE CONTACT: TOM CRISMAN AT tcrisman@cas.usf.edu
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